

What is claimed is,

1. A motor having a rotational member rotatably supported through a bearing device provided on a base member of the motor, said bearing device including inner and an outer rings and a plurality of balls interposed therebetween, said bearing device further including;

a low expansion member press fit around the outer periphery of the outer ring, wherein the low expansion member is made of a material lower in its coefficient of linear expansion than that employed for the outer ring.

2. A motor having a rotational member rotatably supported through a bearing device provided on a base member thereof, said bearing device further including;

a shaft, a cylindrical outer ring member surrounding the shaft, a plurality of balls of the first and the second rows interposed between the shaft and the outer ring member, and a low expansion member press fit around the outer periphery of the outer ring, wherein the low expansion member is made of a material lower in its coefficient of linear expansion than that employed for the outer ring.

3. A motor having a rotational member rotatably supported through a bearing device provided on a base member thereof, said bearing device further including;

a shaft to which an inner ring is fit slidably therearound, a cylindrical outer ring member surrounding the

shaft, a plurality of balls of the first row interposed between the first inner ring raceway formed on the outer periphery of the inner ring and the first outer ring raceway formed on the inner periphery of the outer ring member, a plurality of balls of the second row interposed between the second inner ring raceway formed directly on the outer periphery of the shaft and the second outer ring raceway formed on the inner periphery of the outer ring member, and a low expansion ring press fit around the outer periphery of the outer ring, wherein the low expansion ring is made of a material lower in its coefficient of linear expansion than that employed for the outer ring, the inner ring is secured on the shaft with applying an appropriate amount of preload thereon.

4. A motor having a rotational member rotatably supported through a bearing device provided on a base member thereof, said bearing device further including;

a shaft, a cylindrical outer ring member surrounding the shaft, a plurality of balls of the first and the second rows interposed between the shaft and the outer ring member, and a low expansion member press fit around the outer periphery of the outer ring, wherein the low expansion member is made of a material lower in its coefficient of linear expansion than that employed for the outer ring, and wherein the shaft is secured on the base member to extend therefrom,

and the central portion of the rotor or the rotational member is fit over the outer periphery of the outer ring member.

5. A motor having a rotational member rotatably supported through a bearing device provided on a base member thereof, said bearing device further including;

a shaft to which an inner ring is fit slidably therearound, a cylindrical outer ring member surrounding the shaft, a plurality of balls of the first row interposed between the first inner ring raceway formed on the outer periphery of the inner ring and the first outer ring raceway formed on the inner periphery of the outer ring member, a plurality of balls of the second row interposed between the second inner ring raceway formed directly on the outer periphery of the shaft and the second outer ring raceway formed on the inner periphery of the outer ring member, and a low expansion ring press fit around the outer periphery of the outer ring, wherein the low expansion ring is made of a material lower in its coefficient of linear expansion than that employed for the outer ring, the inner ring is secured on the shaft with applying an appropriate amount of preload thereon, and wherein the shaft is secured on the base member to extend therefrom, and the central portion of the rotor or the rotational member is fit over the outer periphery of the outer ring member.

6. The bearing device according to any one of claims 1-5,

characterized in that the balls are of ceramic material.

7. The bearing device according to any one of claim 1-5,  
characterized in that the low expansion member is of ceramic  
material.

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